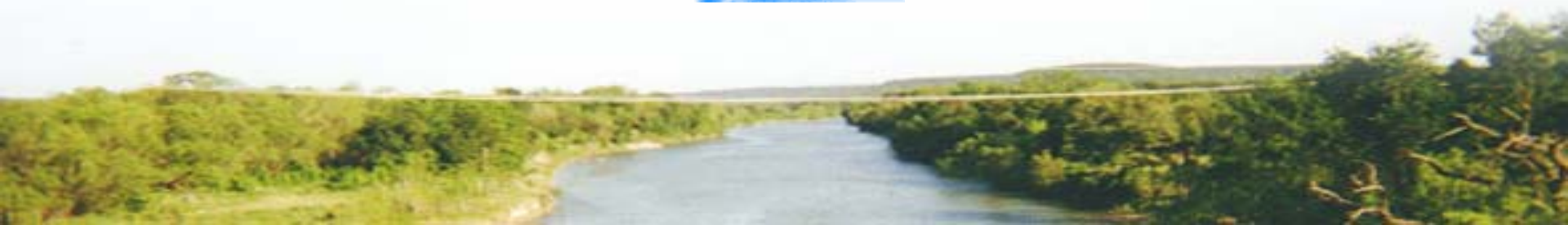


# ***Introduction***

**Kyle Headley**  
**Regional Environmental Planner**  
**(Central Basin)**  
**Brazos River Authority**



# ***Agenda***

- **Introduction**
- **Ecological Evaluation**
- **Watershed Studies**
- **Conclusion**

*Kyle Headley (BRA)*

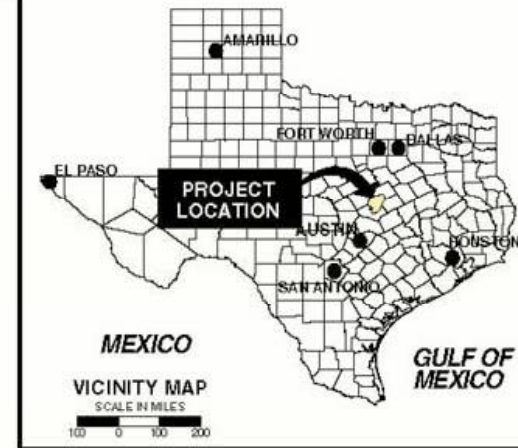
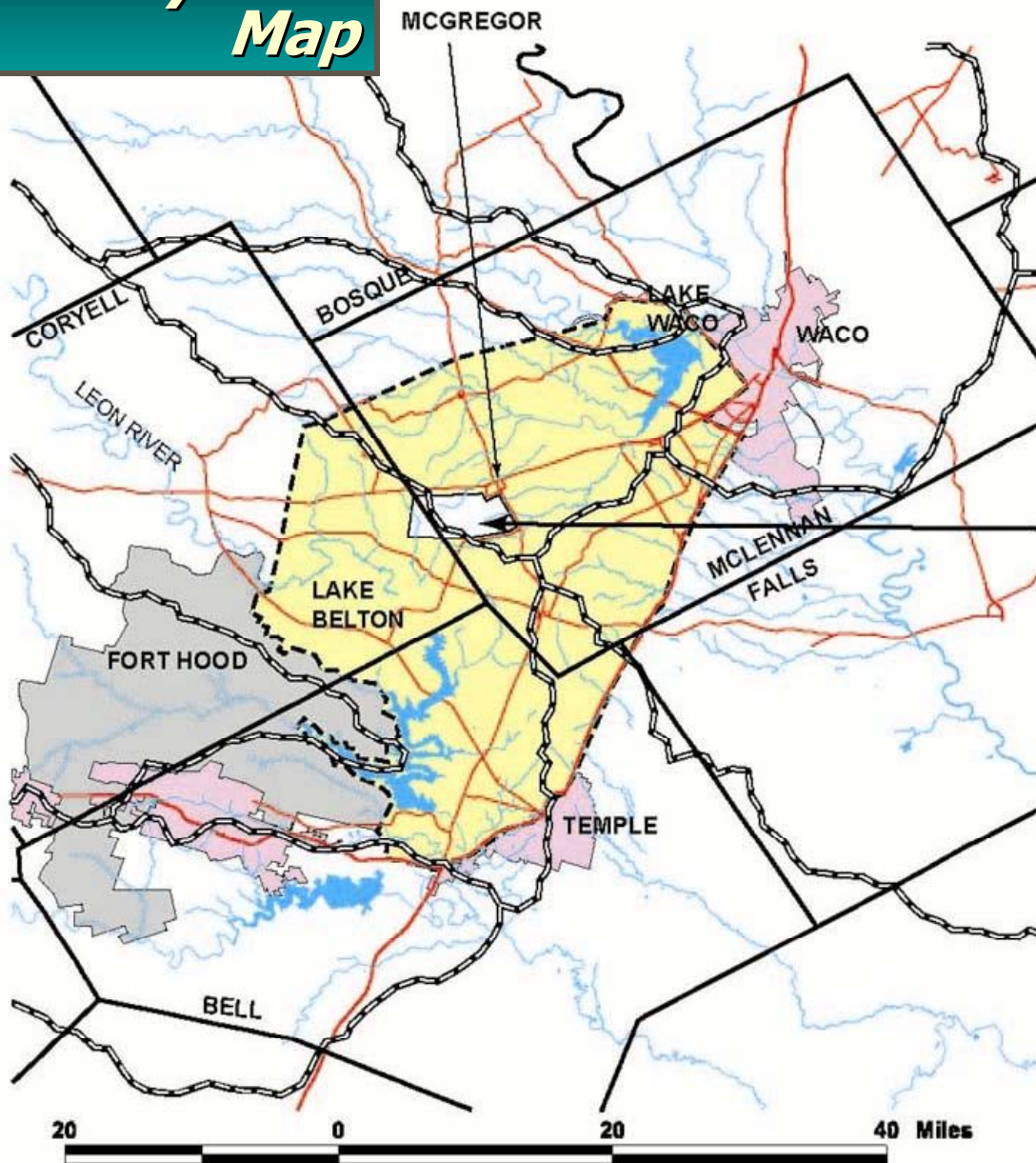
*Todd Anderson (TIEHH)*

*Ronald Hartline (MWH)*

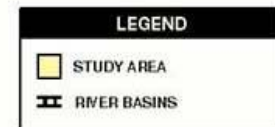
*Brian Condiike (USACE)*



# Study Area Map



NAVAL WEAPONS  
INDUSTRIAL RESERVE  
PLANT



BRAZOS RIVER BASIN, TEXAS  
BOSQUE & LEON RIVER BASINS

1 JANUARY 2001

U.S. ARMY ENGINEER DISTRICT, FORT WORTH, TEXAS  
SOUTHWESTERN DIVISION

# ***Project Goal***

**Evaluate potential human and environmental exposure to perchlorate in the lakes Waco and Belton study area.**

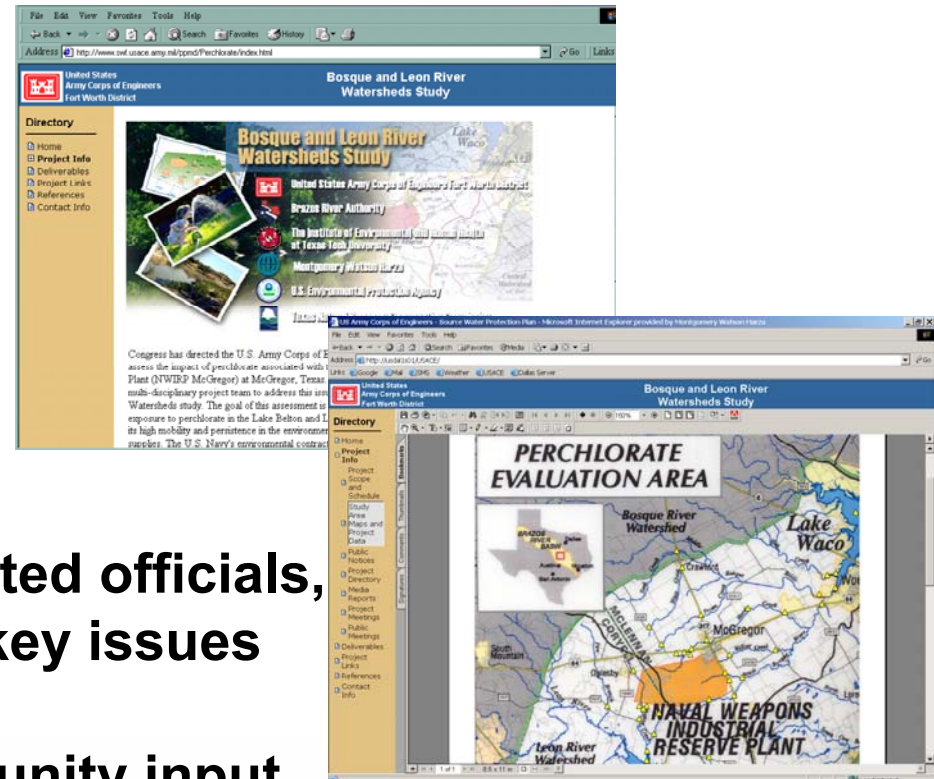
*--- Project Team (February 2000)*





# *Community Outreach*

- Stakeholder interviews
- Community Relations Plan
- Stakeholder meetings
- Public meetings
- Briefings for elected official's
- Web site



## *Benefits:*

- Ensures that stakeholders, elected officials, and the public are informed of key issues and project progress.
- Provides opportunity for community input

[www.swf.usace.army.mil/ppmd/Perchlorate/index.html](http://www.swf.usace.army.mil/ppmd/Perchlorate/index.html)

# *Objectives*

## Completed

- Develop effective community relations plan. ✓
- Compile existing study area information. ✓
- Identify data gaps in existing information. ✓
- Define and Develop the Conceptual Study Model (CSM). ✓
- Based on data gaps, develop Field Sampling Plans. ✓
- Field Investigation to fill the key data gaps. 90% Complete
- Evaluate fate and transport pathways. In Progress



# ***Objectives (Cont'd)***

## **Completed**

- Evaluate potential environmental exposure to perchlorate in the study area. **In Progress**
- Evaluate potential human exposure to perchlorate in the study area. **In Progress**
- Assess exposure pathways to vegetation, fish, birds, mammals. **In Progress**
- Assess impact on amphibians, fish, and large and small mammals. **In Progress**
- Integrate data and assess ecological risk **In Progress**



# ***Ecological Evaluation***

**Todd Anderson**

**The Institute of Environmental and  
Human Health**

**Texas Tech University**





# ***Ecological Objectives***

- **Identify Points and Pathways of Exposure**
- **Assess Impacts on Fish and Amphibians**
- **Assess Impacts on Mammals and Birds**
- **Model Long-Term Exposure and Effects**

